

پیوست شماره ۱

حداقل کمیت مواد شیمیایی با پتانسیل ایجاد حادثه

(TPQ)

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Acetic acid ethenyl ester	108-05-4	450
Acetone cyanohydrin	75-86-5	450
Acetone thiosemicarbazide	1752-30-3	450
Acrolein	107-02-8	225
Acrylamide	79-06-1	450
Acrylonitrile	107-13-1	4500
Acrylyl chloride	814-68-6	45
Adiponitrile	111-69-3	450
Aldicarb	116-06-3	45
Aldrin	309-00-2	225
Allyl alcohol	107-18-6	450
Allylamine	107-11-9	225
Aluminum phosphide	20859-73-8	225
5-(Aminomethyl)-3-isoxazolol	2763-96-4	225
Aminopterin	54-62-6	225
4-Aminopyridine	504-24-5	225
Amiton	78-53-5	225
Amiton oxalate	3734-97-2	45
Ammonia	7664-41-7	225
Ammonia (anhydrous)	7664-41-7	225
Amphetamine	300-62-9	450
Aniline	62-53-3	450
Aniline, 2,4,6-trimethyl-	88-05-1	225
Antimony pentafluoride	7783-70-2	225
Antimycin A	1397-94-0	450
ANTU	86-88-4	225
Arsenic pentoxide	1303-28-2	45
Arsenic trioxide	1327-53-3	45
Arsenous oxide	1327-53-3	45
Arsenous trichloride	7784-34-1	225
Arsine	7784-42-1	45
Azinphos-ethyl	2642-71-9	45
Azinphos-methyl	86-50-0	4.5
Aziridine	151-56-4	225
Aziridine, 2-methyl	75-55-8	4500
Benzal chloride	98-87-3	225
Benzenamine, 3-(trifluoromethyl)-	98-16-8	225
Benzeneearsonic acid	98-05-5	4.5
Benzene, 1-(chloromethyl)-4-nitro-	100-14-1	225
Benzene, 2,4-diisocyanato-1-methyl-	584-84-9	225

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Benzene, 1,3-diisocyanato-2-methyl-	91-08-7	45
Benzenethiol	108-98-5	225
Benzimidazole, 4,5-dichloro-2- (trifluoromethyl)-	3615-21-2	225
Benzoic trichloride	98-07-7	45
Benzotrichloride	98-07-7	45
Benzyl chloride	100-44-7	225
Benzyl cyanide	140-29-4	225
Bicyclo[2.2.1]heptane-2-carbonitrile,	15271-41-7	225
2,2'-Bioxirane	1464-53-5	225
Bis(2-chloroethyl) ether	111-44-4	4500
Bis(chloromethyl) ether	542-88-1	45
Bis(chloromethyl) ketone	534-07-6	4.5
Bitoscanate	4044-65-9	225
Borane, trichloro-	10294-34-5	225
Borane, trifluoro-	7/2/7637	225
Boron trichloride	10294-34-5	225
Boron trifluoride	7/2/7637	225
Boron trifluoride compound with methyl ether (1:1)	353-42-4	450
Boron, trifluoro[oxybis[methane	353-42-4	450
Bromadiolone	28772-56-7	45
Bromine	7726-95-6	225
Bromomethane	74-83-9	450
2-Butenal	4170-30-3	450
2-Butenal, (e)-	123-73-9	450
Cadmium oxide	1306-19-0	45
Cadmium stearate	2223-93-0	450
Calcium arsenate	7778-44-1	225
Campechlor	8001-35-2	225
Camphene, octachloro-	8001-35-2	225
Cantharidin	56-25-7	45
Carbachol chloride	51-83-2	225
Carbamic acid, methyl-, O-(((2,4-	26419-73-8	45
Carbofuran	1563-66-2	4.5
Carbon disulfide	75-15-0	4500
Carbonic dichloride	75-44-5	4.5
Carbonochloridic acid, methylester	79-22-1	225
Carbonochloridic acid, 1-methylethyl ester	108-23-6	450
Carbonochloridic acid, propylester	109-61-5	225
Carbophenothion	786-19-6	225
Chlordane	57-74-9	450
Chlorfenvinfos	470-90-6	225
Chlorine	7782-50-5	45
Chlormephos	24934-91-6	225
Chlormequat chloride	999-81-5	45

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Chloroacetic acid	79-11-8	45
2-Chloro-N-(2-chloroethyl)-N- methylethanamine	51-75-2	4.5
Chloroethanol	107-07-3	225
Chloroethyl chloroformate	627-11-2	450
Chloroform	67-66-3	4500
Chloromethyl ether	542-88-1	45
Chloromethyl methyl ether	107-30-2	45
Chlorophacinone	3691-35-8	45
3-Chloropropionitrile	542-76-7	450
Chloroxuron	1982-47-4	225
Chlorthiophos	21923-23-9	225
Cobalt carbonyl	10210-68-1	4.5
Cobalt, ((2,2'-(1,2- ethanediylbis(nitrilomethylidyne))bis(6	62207-76-5	45
Colchicine	64-86-8	4.5
Coumaphos	56-72-4	45
Coumatetralyl	5836-29-3	225
o-Cresol	95-48-7	450
Crimidine	535-89-7	45
Crotonaldehyde	4170-30-3	450
Crotonaldehyde, (E)-	123-73-9	450
Cupric acetoarsenite	12002-03-8	225
Cyanogen bromide	506-68-3	225
Cyanogen iodide	506-78-5	450
Cyanophos	2636-26-2	450
Cyanuric fluoride	675-14-9	45
Cyclohexanamine	108-91-8	4500
Cyclohexane, 1,2,3,4,5,6-hexachloro-	58-89-9	450
Cycloheximide	66-81-9	45
Cyclohexylamine	108-91-8	4500
Decaborane(14)	17702-41-9	225
Demeton	8065-48-3	225
Demeton-S-methyl	919-86-8	225
Dialifor	10311-84-9	45
Diborane	19287-45-7	45
Diborane(6)	19287-45-7	45
trans-1,4-Dichloro-2-butene	110-57-6	225
trans-1,4-Dichlorobutene	110-57-6	225
Dichloroethyl ether	111-44-4	4500
Dichloromethyl ether	542-88-1	45
Dichloromethylphenylsilane	149-74-6	450
Dichlorophenylarsine	696-28-6	225
Dichlorvos	62-73-7	450
Dicrotophos	141-66-2	45
Diepoxybutane	1464-53-5	225

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Diethyl chlorophosphate	814-49-3	225
O,O-Diethyl O-pyrazinyl phosphorothioate	297-97-2	225
Digitoxin	71-63-6	45
Diglycidyl ether	7/5/2238	450
Digoxin	20830-75-5	4.5
Diisopropylfluorophosphate	55-91-4	45
Dimefox	115-26-4	225
1,4:5,8-Dimethanonaphthalene,	309-00-2	225
Dimethoate	60-51-5	225
Dimethyl chlorothiophosphate	2524-03-0	225
Dimethyldichlorosilane	75-78-5	225
1,1-Dimethyl hydrazine	57-14-7	450
Dimethylhydrazine	57-14-7	450
Dimethyl-p-phenylenediamine	99-98-9	4.5
Dimethyl phosphorochloridothioate	2524-03-0	225
Dimethyl sulfate	77-78-1	225
Dimetilan	644-64-4	225
Dinitrobutyl phenol	88-85-7	45
4,6-Dinitro-o-cresol	534-52-1	4.5
Dinitrocresol	534-52-1	4.5
Dinoseb	88-85-7	45
Dinoterb	1420-07-1	225
Dioxathion	78-34-2	225
Diphacinone	82-66-6	4.5
Diphosphoramidate, octamethyl-	152-16-9	45
Disulfoton	298-04-4	225
Dithiazanine iodide	514-73-8	225
Dithiobiuret	541-53-7	45
2,4-Dithiobiuret	541-53-7	45
Emetine, dihydrochloride	316-42-7	0.45
Endosulfan	115-29-7	4.5
Endothion	4/3/2778	225
Endrin	72-20-8	225
Epichlorohydrin	106-89-8	450
EPN	2104-64-5	45
Ergocalciferol	50-14-6	450
Ergotamine tartrate	379-79-3	225
1,2-Ethanediamine	107-15-3	4500
Ethaneperoxy acid	79-21-0	225
Ethanesulfonyl chloride, 2-chloro-	1622-32-8	225
Ethane, 1,1'-thiobis[2-chloro-	505-60-2	225
Ethanimidothioic acid, N- [[methylamino)carbonyl]	16752-77-5	225
Ethanol, 1,2-dichloro-, acetate	10140-87-1	450
Ethion	563-12-2	450
Ethoprop	13194-48-4	450

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Ethoprophos	13194-48-4	450
Ethylbis(2-chloroethyl)amine	538-07-8	225
Ethyl cyanide	107-12-0	225
Ethylenediamine	107-15-3	4500
Ethylene fluorohydrin	371-62-0	4.5
Ethyleneimine	151-56-4	225
Ethylene oxide	75-21-8	450
Ethylthiocyanate	542-90-5	4500
Fenamiphos	22224-92-6	4.5
Fensulfothion	115-90-2	225
Fluenetil	4301-50-2	45
Fluorine	7782-41-4	225
Fluoroacetamide	640-19-7	45
Fluoroacetic acid	144-49-0	4.5
Fluoroacetic acid, sodium salt	62-74-8	4.5
Fluoroacetyl chloride	359-06-8	4.5
Fluorouracil	51-21-8	225
5-Fluorouracil	51-21-8	225
Fonofos	944-22-9	225
Formaldehyde	50-00-0	225
Formaldehyde cyanohydrin	107-16-4	450
Formaldehyde (solution)	50-00-0	225
Formetanate hydrochloride	23422-53-9	225
Formothion	2540-82-1	45
Formparanate	17702-57-7	45
Fosthietan	21548-32-3	225
Fuberidazole	3878-19-1	45
Furan	110-00-9	225
Gallium trichloride	13450-90-3	225
Guthion	86-50-0	4.5
Hexachlorocyclohexane (gamma isomer)	58-89-9	450
Hexachlorocyclopentadiene	77-47-4	45
Hexamethylenediamine, N,N'-dibutyl-	11/4/4835	225
Hydrazine	302-01-2	450
Hydrazine, 1,1-dimethyl-	57-14-7	450
Hydrazine, methyl-	60-34-4	225
Hydrocyanic acid	74-90-8	45
Hydrofluoric acid	7664-39-3	45
Hydrofluoric acid (conc. 50% or greater)	7664-39-3	45
Hydrogen chloride (anhydrous)	7647-01-0	225
Hydrogen chloride (gas only)	7647-01-0	225
Hydrogen cyanide	74-90-8	45
Hydrogen fluoride	7664-39-3	45
Hydrogen fluoride (anhydrous)	7664-39-3	45
Hydrogen peroxide (Conc.> 52%)	7722-84-1	450

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Hydrogen selenide	7783-35-9	4.5
Hydrogen sulfide	7/5/7783	225
Hydroquinone	123-31-9	225
Iron carbonyl (Fe(CO)5), (TB-5-11)-	13463-40-6	45
Iron, pentacarbonyl-	13463-40-6	45
Isobenzan	297-78-9	45
Isobutyronitrile	78-82-0	450
Isocyanic acid, 3,4-dichlorophenyl ester	102-36-3	225
Isodrin	465-73-6	45
Isofluorophate	55-91-4	45
Isophorone diisocyanate	4098-71-9	225
Isopropyl chloroformate	108-23-6	450
Isopropylmethylpyrazolyl	119-38-0	225
Isothiocyanatomethane	556-61-6	225
Lactonitrile	78-97-7	450
Leptophos	21609-90-5	225
Lewisite	541-25-3	4.5
Lindane	58-89-9	450
Lithium hydride	7580-67-8	45
Malononitrile	109-77-3	225
Manganese, tricarbonyl	12108-13-3	45
Mechlorethamine	51-75-2	4.5
Mephosfolan	950-10-7	225
Mercaptodimethur	2032-65-7	225
Mercuric acetate	1600-27-7	225
Mercuric chloride	7487-94-7	225
Mercuric oxide	21908-53-2	225
Methacrolein diacetate	10476-95-6	450
Methacrylic anhydride	760-93-0	225
Methacrylonitrile	126-98-7	225
Methacryloyl chloride	920-46-7	45
Methacryloyloxyethyl isocyanate	30674-80-7	45
Methamidophos	10265-92-6	45
Methanamine, N-methyl-N-nitroso-	62-75-9	450
Methane, chloromethoxy-	107-30-2	45
Methane, isocyanato-	624-83-9	225
Methane, oxybis[chloro-	542-88-1	45
Methanesulfonyl chloride, trichloro-	594-42-3	225
Methanesulfonyl fluoride	558-25-8	450
Methane, tetranitro-	509-14-8	225
Methanethiol	74-93-1	225
Methane, trichloro-	67-66-3	4500
4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-	57-74-9	450
Methidathion	950-37-8	225
Methiocarb	2032-65-7	225
Methomyl	16752-77-5	225

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Methoxyethylmercuric acetate	151-38-2	225
Methyl bromide	74-83-9	450
Methyl 2-chloroacrylate	80-63-7	225
Methyl chlorocarbonate	79-22-1	225
Methyl chloroformate	79-22-1	225
Methyl hydrazine	60-34-4	225
Methyl isocyanate	624-83-9	225
Methyl isothiocyanate	556-61-6	225
2-Methylactonitrile	75-86-5	450
Methyl mercaptan	74-93-1	225
Methylmercuric dicyanamide	502-39-6	225
Methyl parathion	298-00-0	45
Methyl phenkapton	3735-23-7	225
Methyl phosphonic dichloride	676-97-1	45
Methyl thiocyanate	556-64-9	4500
Methyltrichlorosilane	75-79-6	225
Methyl vinyl ketone	78-94-4	4.5
Metolcarb	1129-41-5	45
Mevinphos	7786-34-7	225
Mexacarbate	315-18-4	225
Mitomycin C	50-07-7	225
Monocrotophos	6923-22-4	4.5
Muscimol	2763-96-4	225
Mustard gas	505-60-2	225
Nickel carbonyl	13463-39-3	0.45
Nicotine	54-11-5	45
Nicotine sulfate	65-30-5	45
Nitric acid	7697-37-2	450
Nitric acid (conc 80% or greater)	7697-37-2	450
Nitric oxide	10102-43-9	45
Nitrobenzene	98-95-3	4500
Nitrocyclohexane	1122-60-7	225
Nitrogen dioxide	10102-44-0	45
Nitrogen mustard	51-75-2	4.5
Nitrogen oxide (NO)	10102-43-9	45
N-Nitrosodimethylamine	62-75-9	450
Nitrosodimethylamine	62-75-9	450
Norbormide	991-42-4	45
Ouabain	630-60-4	45
Oxamyl	23135-22-0	45
Oxetane, 3,3-bis(chloromethyl)-	78-71-7	225
Oxirane	75-21-8	450
Oxirane, (chloromethyl)-	106-89-8	450
Oxirane, methyl-	75-56-9	4500
Oxydisulfoton	7/6/2497	225
Ozone	10028-15-6	45

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Paraquat dichloride	1910-42-5	4.5
Paraquat methosulfate	2074-50-2	4.5
Parathion	56-38-2	45
Parathion-methyl	298-00-0	45
Paris green	12002-03-8	225
Pentaborane	19624-22-7	225
Pentadecylamine	2570-26-5	45
Peracetic acid	79-21-0	225
Perchloromethyl mercaptan	594-42-3	225
Phenol	108-95-2	225
Phenol, 3-(1-methylethyl)-, methylcarbamate	64-00-6	225
Phenol, 2,2'-thiobis[4-chloro-6-methyl-	4418-66-0	45
Phenoxarsine, 10,10'-oxydi-	58-36-6	225
Phenyl dichloroarsine	696-28-6	225
Phenylhydrazine hydrochloride	59-88-1	450
Phenylmercuric acetate	62-38-4	225
Phenylmercury acetate	62-38-4	225
Phenylsilatrane	2097-19-0	45
Phenylthiourea	103-85-5	45
Phorate	298-02-2	4.5
Phosacetim	4104-14-7	45
Phosfolan	947-02-4	45
Phosgene	75-44-5	4.5
Phosphamidon	13171-21-6	45
Phosphine	7803-51-2	225
Phosphonothioic acid, methyl-, O-ethyl O-(4-(methylthio)phenyl) ester	2703-13-1	225
Phosphonothioic acid, methyl-, S-(2-(bis(1-methylethyl)amino)ethyl) O-ethyl ester	50782-69-9	45
Phosphonothioic acid, methyl-, O-(4-nitrophenyl) O-phenyl ester	2665-30-7	225
Phosphoric acid, 2-dichloroethenyl dimethyl ester	62-73-7	450
Phosphoric acid, dimethyl 4-(methylthio) phenyl ester	3254-63-5	225
Phosphorodithioic acid O-ethyl S,S-dipropyl ester	13194-48-4	450
Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester	56-38-2	45
Phosphorothioic acid, O,O-dimethyl-5-(2-(methylthio)ethyl)ester	2587-90-8	225
Phosphorous trichloride	12/2/7719	450
Phosphorus (yellow or white)	7723-14-0	45
Phosphorus	7723-14-0	45
Phosphorus oxychloride	10025-87-3	225



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Phosphorus pentachloride	10026-13-8	225
Phosphorus trichloride	7720-78-7	450
Phosphoryl chloride	10025-87-3	225
Physostigmine	57-47-6	45
Physostigmine, salicylate (1:1)	57-64-7	45
Picrotoxin	124-87-8	225
Piperidine	110-89-4	450
Pirimifos-ethyl	23505-41-1	450
Plumbane, tetramethyl-	75-74-1	45
Potassium arsenite	10124-50-2	225
Potassium cyanide	151-50-8	45
Potassium silver cyanide	506-61-6	225
Promecarb	2631-37-0	225
Propanenitrile	107-12-0	225
Propanenitrile, 2-methyl-	78-82-0	450
Propargyl bromide	106-96-7	4.5
2-Propenal	107-02-8	225
2-Propen-1-amine	107-11-9	225
2-Propenenitrile	107-13-1	4500
2-Propenenitrile, 2-methyl-	126-98-7	225
2-Propen-1-ol	107-18-6	450
2-Propenoyl chloride	814-68-6	45
beta-Propiolactone	57-57-8	225
Propionitrile	107-12-0	225
Propionitrile, 3-chloro-	542-76-7	450
Propiophenone, 4'-amino	70-69-9	45
Propyl chloroformate	109-61-5	225
Propyleneimine	75-55-8	4500
Propylene oxide	75-56-9	4500
Prothoate	2275-18-5	45
Pyrene	129-00-0	450
Pyridine, 4-amino-	504-24-5	225
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-	54-11-5	45
Pyridine, 2-methyl-5-vinyl-	140-76-1	225
Pyridine, 4-nitro-, 1-oxide	1124-33-0	225
Pyriminil	53558-25-1	45
Salcomine	14167-18-1	225
Sarin	107-44-8	4.5
Selenious acid	7783-00-8	450
Selenium oxychloride	7791-23-3	225
Semicarbazide hydrochloride	563-41-7	450
Silane, (4-aminobutyl)diethoxymethyl-	3037-72-7	450
Silane, chlorotrimethyl-	75-77-4	450
Silane, dichlorodimethyl-	75-78-5	225
Silane, trichloromethyl-	75-79-6	225

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Sodium arsenate	7601-54-9	450
Sodium arsenite	7784-46-5	225
Sodium azide (Na(N <sub>3</sub> ))	26628-22-8	225
Sodium cacodylate	124-65-2	45
Sodium cyanide (Na(CN))	143-33-9	45
Sodium fluoroacetate	62-74-8	4.5
Sodium selenate	13410-01-0	45
Sodium selenite	10102-18-8	45
Sodium tellurite	10102-20-2	225
Stannane, acetoxytriphenyl-	900-95-8	225
Strychnine	57-24-9	45
Strychnine, sulfate	60-41-3	45
Sulfotep	3689-24-5	225
Sulfoxide, 3-chloropropyl octyl	3569-57-1	225
Sulfur dioxide	9/5/7446	225
Sulfur dioxide (anhydrous)	9/5/7446	225
Sulfur fluoride (SF <sub>4</sub> ), (T-4)-	7783-60-0	45
Sulfuric acid (aerosol forms only)	7664-93-9	450
Sulfuric acid	7664-93-9	450
Sulfur tetrafluoride	7783-60-0	45
Sulfur trioxide	11/9/7446	45
Tabun	77-81-6	4.5
Tellurium hexafluoride	7783-80-4	45
TEPP	107-49-3	45
Terbufos	13071-79-9	45
Tetraethyldithiopyrophosphate	3689-24-5	225
Tetraethyl lead	78-00-2	45
Tetraethyl pyrophosphate	107-49-3	45
Tetraethyltin	597-64-8	45
Tetramethyllead	75-74-1	45
Tetranitromethane	509-14-8	225
Thallium(I) carbonate	6533-73-9	45
Thallium chloride TlCl	7791-12-0	45
Thallium(I) sulfate	7446-18-6	45
Thallium sulfate	10031-59-1	45
Thallos carbonate	6533-73-9	45
Thallos chloride	7791-12-0	45
Thallos malonate	2757-18-8	45
Thallos sulfate	7446-18-6	45
Thiocarbazide	2231-57-4	450
Thiocyanic acid, methyl ester	556-64-9	4500
Thiofanox	39196-18-4	45
Thiomethanol	74-93-1	225
Thionazin	297-97-2	225
Thiophenol	108-98-5	225
Thiosemicarbazide	79-19-6	45

نام ماده شیمیایی	شماره CAS	کمیت بر حسب کیلوگرم (TPQ)
Thiourea, (2-chlorophenyl)-	5344-82-1	45
Thiourea, (2-methylphenyl)-	614-78-8	225
Thiourea, 1-naphthalenyl-	86-88-4	225
Titanium chloride (TiCl <sub>4</sub> ) (T-4)-	7550-45-0	45
Titanium tetrachloride	7550-45-0	45
Toluene-2,4-diisocyanate	584-84-9	225
Toluene-2,6-diisocyanate	91-08-7	45
Toxaphene	8001-35-2	225
Triamiphos	1031-47-6	225
Triazofos	24017-47-8	225
Trichloroacetyl chloride	76-02-8	225
Trichloro(chloromethyl)silane	1558-25-4	45
Trichloro(dichlorophenyl)silane	27137-85-5	225
Trichloroethylsilane	115-21-9	225
Trichloromethanesulfonyl chloride	594-42-3	225
Trichloronate	327-98-0	225
Trichlorophenylsilane	98-13-5	225
Triethoxysilane	998-30-1	225
Trimethylchlorosilane	75-77-4	450
Trimethylolpropane phosphite	824-11-3	45
Trimethyltin chloride	1066-45-1	225
Triphenyltin chloride	639-58-7	225
Tris(2-chloroethyl)amine	555-77-1	45
Valinomycin	2001-95-8	450
Vanadium pentoxide	1314-62-1	45
Vinyl acetate	108-05-4	450
Vinyl acetate monomer	108-05-4	450
Warfarin	81-81-2	225
Warfarin sodium	129-06-6	45
Xylylene dichloride	28347-13-9	45
Zinc, dichloro(4,4-dimethyl-5((((methylamino)carbonyloxy)imino)pentanenitrile)-, (T-4)-	58270-08-9	45
Zinc phosphide	1314-84-7	225
Zinc phosphide (conc. ≤ 10%)	1314-84-7	225
Zinc phosphide (conc. > 10%)	1314-84-7	225